careers in perspective. Efforts are made to capture particular moments in the profession. The origins of specialities are described. Key finds are celebrated. In total, the authorship is diverse: there are 106 contributors. Few write more than one essay. The most frequent authors are: Crow (26 essays); Dove (6); Joshua Lederberg (5); and Franklin Stahl (5). Overall, most contributors are working geneticists, though a few professional historians contribute pieces on their special interests. There is much to enjoy in this anthology. But reservations are more important.

The book's publicity suggests these essays "cumulatively are a history of modern genetics research and its continuing evolution". I think not. To be sure, there are many wonderful episodes recounted and many dedicated researchers justly praised. But because the original interest was retrospection, readers of this anthology will not find discussions of post-1980 trends in genetics. Likewise, the overall focus is Anglo-American. Negative and dissident voices are rare. Failure and conflict have a small place. A great deal of the recollecting offered by non-participants derives from third and fourth hand knowledge. Errors of fact abound. Many conclusions have been superseded. Great swaths of the field go unmentioned. Science and society connections are few.

Best uses for this anthology are two. First, it offers a heritage for genetics, not a history. This provides science studies scholars with a splendid and compact opportunity to examine how members of a discipline construct their past and put it to work in their present. Second, I have already seen this anthology assigned in university courses on the history of genetics. Alone it is not enough and should be complemented with original sources like that provided by Robert Robbins' e-library on genetics in the "Electronic Scholarly Publishing" project <www.esp.org>.

I also have some frustrations with the assembly of this anthology. First, the

articles carry no citations to their original volume and page. This forces users back to the original journals for basic publishing information. Second, the presence of an index (rare in anthologies these days) is commendable, but the result is not. It in no way helps readers access relevant essays. Third, the arrangement is chronological, which seems sensible. However, the editors also should have provided thematic links through the series to help readers. No one knows better than they how these essays interconnect as a sequence.

Most important, the introduction is a disappointment. It is less than one page. This was a golden opportunity to describe how their project evolved and to offer impressions on the process to which they were so committed. As commissioning agents for the series, certainly they had goals and expectations. Were these reached? What negotiations moved this process along? How did their attitudes evolve? Were certain messages intended when commissioning particular essays? How did they handle authors clearly pressing personal agendas? On such analytical questions, the editors remain silent. We are asked to accept this anthology as a passive accumulation of knowledge. Everyone knows there's more to the story than this. I can only hope such stories will appear in future instalments of this feature in the pages of Genetics.

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Arne Hessenbruch (ed.), Reader's guide to the history of science, London and Chicago, Fitzroy Dearborn, 2000, pp. xxix, 934, £95.00 (hardback 1-884964-29-X).

This volume is best understood as a guide to how the profession approaches its intellectual work. Hessenbruch's goal has been to capture the state of scholarship: what do we conclude about our subjects, and what historiographical flags do we fly in the process. The result is uneven but generally admirable.

Structured in encyclopaedia format, this guide covers a wide range within history of science, medicine, and technology in all periods. Single entries consider individuals, disciplines and institutions, and so-called "broader themes" (for example, experimentation, Enlightenment, Darwinism). Historians of medicine and technology will feel under-represented despite the substantial coverage. Everyone will be able to name at least five themes they might have otherwise included. But that is not entirely fair to Hessenbruch. There are simply too many themes in our three specialities to pack into a single volume of this kind. This is an admirable effort. Perhaps companions to this guide will solve that problem.

Entries begin with a set of relevant secondary sources. By design, books are preferred in these lists; primary sources are discouraged. Entries are charged with describing major and recent trends in scholarship—the lay of the historiographical landscape—and to avoid simple recitals of facts about the subject itself. The goal is not to replace the *Encyclopaedia Britannica* or the *Dictionary of Scientific Biography*. This project has different interests. Each entry is signed.

As might be expected, entries are uneven. All read like historiographical essays assigned on taught graduate courses. As with graduate essays, some entries in this guide are lazy and benign arrangements. They state obvious descriptive points about a text's scope or origin in a professional setting. They cite texts as crucial but never explain why. Other entries sparkle, leaving the reader not only with a reliable overview of scholarship but also with subtle points about perspective and analytical programmes. They feel as though their authors have worked hard at synthesis and

comparison. They remind us about the plurality of perspectives currently alive within the field.

Hessenbruch claims two audiences. First, undergraduate and graduate students are expected to use this volume as a first-stop on research projects. It is supposed to signal key work and to locate authorities within the subject. I have already used this guide in both populations with success. I find it serves well as a role model for historiographical projects: tell students to think how the better entries work and to compress their own studies of secondary sources along similar lines. The second audience is said to be professionals preparing materials for courses or scanning for developments outside their speciality. This guide certainly provides a great deal of material for reading lists. For areas where developments recently have been rapid, the surveys provide useful refreshers and updates. They also help with decisions about library acquisition. Inevitably, I want to quibble with many points in entries around my special interests, but that is par for the course. The signed entries are a clever device. It provokes recursive thinking about the author's own intellectual sympathies. It also guards against abusing self-citation.

The indexing makes this guide special. The production team clearly has thought hard about how people might use the book. It is not simply A to Z, as are some of its competitors. An alphabetical list of entries in the front matter makes scanning easy. So does a thematic index. An appendix cross-references all sources cited in the entries. This is immensely helpful because it enables the correlation of comments about single texts and particular historians. The general index is thoughtful though not especially exhaustive. For a project like this, it is about the best that is practicable.

See that your library buys this guide. Encourage students to use it. Update your core lecture notes. Use it when suggesting research topics. Use it to fuel reflections

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about our approaches and intellectual anchors. Hopefully, it will help us collectively to pass over lesser issues and move towards more thoughtful concerns. Unlike so many other guides in the expanding breed, Hessenbruch has

produced something that delivers on its promise to help others understand what we do.

Joe Cain, University College London